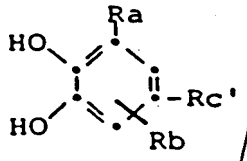
Patent Claims

1. A compounds of the formula



Ib

wherein Ra is nitro or cyano, Rb is hydrogen or halogen, Rc' is nitro, cyano or the group $-(A)_n-(Q)_m-R^{11}$ or $-(A)_n-Q-R^{21}$, A is vinylene optionally substituted by lower alkyl, n is the integer 0 or 1, m is the integer 0 or 1, R^{11} is the group $-COR^{31}$, an aromatic carbocyclic group, or an aromatic or partially unsaturated heterocyclic group attached via a carbon atom, R^{21} is an optionally substituted, saturated or partially unsaturated lower hydrocarbon residue, R^{31} is hydroxy, amino, an optionally substituted, saturated or partially unsaturated lower hydrocarbon residue attached via an oxygen atom or an imino or lower alkylimino group or a saturated, N-containing heterocyclic group attached via a ring nitrogen atom, Q is the group -CO- or $>C=N-(Z)_p-R^4$, Z is an oxygen atom or an imino group, p is the integer 0 or 1 and R^4 is hydrogen or a saturated or partially unsaturated lower hydrocarbon residue which is optionally substituted and which is optionally attached via a carbonyl group, whereby Ra is cyano when Rc' is cyano or nitro and R^{31} has a significance different from hydroxy when m is the integer 0,

or an ester or ether derivative thereof which is hydrolyzable under physiological conditions or a pharmaceutically acceptable salt thereof.

2. A compound, according to claim 1, wherein Rb is situated in the p-position to Ra.

3. A compound, according to claim 2, wherein Ra is nitro.

4. A compound, according to claim 3, wherein Rb is hydrogen, chlorine or fluorine.

5. A compound, according to claim 4, wherein Rb is hydrogen.

6. A compound, according to claim 5, wherein Rc' is the group $-CO-R^{11}$ and R^{11} is an aromatic, mononuclear carbocyclic group or an aromatic, mononuclear heterocyclic group with 1-3 nitrogen atoms as the hetero ring member(s) which is attached via a carbon atom.

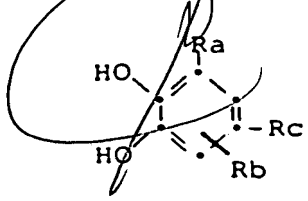
7. A compound, according to claim 6, wherein R^{11} is a phenyl group optionally mono- or disubstituted by halogen, trifluoromethyl, cyano, hydroxy or lower alkyl or a pyridyl group.

8. A compound, according to claim 1, 3,4-Dihydroxy-5-nitrobenzophenone.

9. A compound, according to claim 1, 2'-Fluoro-3,4-dihydroxy-5-nitrobenzophenone.

10. A compound, according to claim 1, 3,4-Dihydroxy-5-nitrophenyl 4-pyridyl ketone.

11. A pharmacautical composition comprising a compound of the formula



Ia

wherein Ra is nitro or cyano, Rb is hydrogen or halogen, Rc is halogen, nitro, cyano or the group $-(A)_n-(Q)_m-R^1$ or $-(A)_n-Q-R^2$, A is vinylene optionally substituted by lower alkyl, n is the integer 0 or 1, m is the integer 0 or 1, R^1 is the group $-COR^3$, an aromatic carbocyclic group, or an aromatic or partially unsaturated heterocyclic group attached via a carbon atom, R^2 is hydrogen or an optionally substituted, saturated or partially unsaturated lower hydrocarbon residue, R^3 is hydroxy, amino, an optionally substituted, saturated or partially unsaturated lower hydrocarbon residue attached via an oxygen atom or an imino or lower alkylimino group or a saturated, N-containing heterocyclic group attached via a ring nitrogen atom, Q is the group -CO- or $>C=N-(Z)_p-R^4$, Z is an oxygen atom or an imino group, p is the integer 0 or 1 and R^4 is hydrogen or a saturated or partially unsaturated lower hydrocarbon residue which is optionally substituted and which is optionally attached via a carbonyl group,

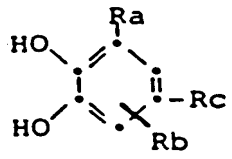
or an ester or ether derivative thereof which is hydrolyzable under physiological conditions or a pharmaceutically acceptable salt thereof, and a therapeutically inert carrier material.

9. A pharmaceutical composition, according to claim 8, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrobenzophenone.

10. A pharmaceutical composition, according to claim 8, wherein the compound of formula Ia is 2'-fluoro-3,4-dihydroxy-5-nitrobenzophenone.

14. A pharmaceutical composition, according to claim 11, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrophenyl 4-pyridyl ketone.

15. A pharmacautical composition comprising L-dopa, a peripheral decarboxylose inhibitor, a compound of the formula



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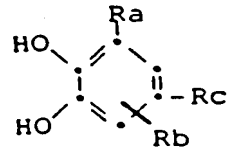
or an ester or ether derivative thereof which is hydrolyzable under physiological conditions or a pharmaceutically acceptable salt thereof, and a therapeutically inert carrier material.

16. A pharmaceutical composition, according to ~~claim~~ 15, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrobenzophenone.

17. A pharmaceutical composition, according to claim 15, wherein the compound of formula Ia is 2'-fluoro-3,4-dihydroxy-5-nitrobenzophenone.

18. A pharmaceutical composition, according to claim 15, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrophenyl 4-pyridyl ketone.

19. A method of treating or preventing depression which comprises administering to a host requiring such treatment an effective amount of a compound of the formula



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or an ester or ether derivative thereof which is

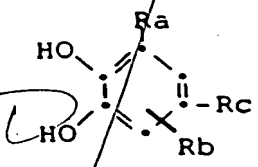
hydrolyzable under physiological conditions or a pharmaceutically acceptable salt thereof.

20. A method of treating or preventing depression, according to claim 19, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrobenzophenone.

21. A method of treating or preventing depression, according to claim 19, wherein the compound of formula Ia is 2'-fluoro-3,4-dihydroxy-5-nitrobenzophenone.

22. A method of treating or preventing depression, according to claim 19, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrophenyl 4-pyridyl ketone.

23. A method of treating parkinsonism which comprises administering to a host requiring such treatment an effective amount of a pharmaceutical composition comprising L-dopa, a peripheral decarboxylase inhibitor, a compound of the formula



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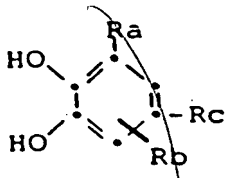
oxygen atom or an imino or lower alkylimino group or a saturated, N-containing heterocyclic group attached via a ring nitrogen atom, Q is the group -CO- or $>C=N-(Z)_p-R^4$, Z is an oxygen atom or an imino group, p is the integer 0 or 1 and R^4 is hydrogen or a saturated or partially unsaturated lower hydrocarbon residue which is optionally substituted and which is optionally attached via a carbonyl group, or an ester or ether derivative thereof which is hydrolyzable under physiological conditions or a pharmaceutically acceptable salt thereof, and a therapeutically inert carrier material.

24. A method of treating parkinsonism, according to claim 23, wherein the compound of formula Ia is 3,4-dihydroxy-5- nitrobenzophenone.

25. A method of treating parkinsonism, according to claim 23, wherein the compound of formula Ia is 2'-fluoro-3,4- dihydroxy-5-nitrobenzophenone.

26. A method of treating parkinsonism, according to claim 23, wherein the compound of formula Ia is 3,4-dihydroxy-5- nitrophenyl 4-pyridyl ketone.

27. A method of treating Parkinson's disease which comprises administering to a host requiring such treatment an effective amount of a pharmaceutical composition comprising L-dopa, a peripheral decarboxylase inhibitor, a compound of the formula



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wherein Ra is nitro or cyano, Rb is hydrogen or halogen, Rc is halogen, nitro, cyano or the group $-(A)_n-(Q)_m-R^1$ or $-(A)_n-Q-R^2$, A is vinylene optionally substituted by lower alkyl, n is the integer 0 or 1, m is the integer 0 or 1, R^1 is the group $-COR^3$, an aromatic carbocyclic group, or an aromatic or partially unsaturated heterocyclic group attached via a carbon atom, R^2 is hydrogen or an optionally substituted, saturated or partially unsaturated lower hydrocarbon residue, R^3 is hydroxy, amino, an optionally substituted, saturated or partially unsaturated lower hydrocarbon residue attached via an oxygen atom or an imino or lower alkylimino group or a saturated, N-containing heterocyclic group attached via a ring nitrogen atom, Q is the group -CO- or $>C=N-(Z)_p-R^4$, Z is an oxygen atom or an imino group, p is the integer 0 or 1 and R^4 is hydrogen or a saturated or partially unsaturated lower hydrocarbon residue which is optionally substituted and which is optionally attached via a carbonyl group,

or an ester or ether derivative thereof which is hydrolyzable ~~under physiological~~ conditions or a pharmaceutically acceptable salt thereof, and a therapeutically inert carrier material.

28. A method of treating Parkinson's disease, according to claim 27, wherein the compound of formula Ia is 3,4-dihydroxy-5- nitrobenzophenone.

29. A method of treating Parkinson's disease, according to claim 27, wherein the compound of formula Ia is 2'-fluoro-3,4-dihydroxy-5-nitrobenzophenone.

30. A method of treating Parkinson's disease, according to claim 27, wherein the compound of formula Ia is 3,4-dihydroxy-5-nitrophenyl 4-pyridyl ketone.